



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,656	06/26/2001	Atsushi Oohashi	Q64995	9112

7590 05/05/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

GONZALEZ, JULIO C

ART UNIT	PAPER NUMBER
----------	--------------

2834

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/888,656	Applicant(s) OOHASHI ET AL.	
	Examiner Julio C. Gonzalez	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 6-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-5 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 discloses a metal interposed between the end portions of the conductors *without covering the outer end surfaces and edges of the end portions*. Such limitation is not found in the original specifications. Correction is required.

Claim 14 discloses that the joint portions have *a continuous planar surface* where the end portions are joined by the metal. Such limitation is not found in the original specifications. Correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al (US 6,181,043) in view of Honda (JP 359123438A), Umeda et al (US 6,124,660) and Ebata et al (US 4,529,459).

Kusase et al discloses stator for a dynamo electric machine having a stator core (see figure 4) and the stator winding having a plurality of conductors 33.

Moreover, Kusase et al discloses that the conductors 33 are made of copper (column 3, lines 32, 33) and that the conductors may soldered by using soft solder as a molten metal (column 6, lines 12, 13), which inherently has a lower melting point than copper (material of conductor).

Although it is well known in the art that soft solder has a lower melting point than copper, Honda discloses for the purpose of avoiding generation of cracking in rotor windings, that conductor made of copper may be connected to other parts of windings 8a by using silver soldering (see Constitution), which has a lower melting point.

However neither Kusase et al nor Honda disclose explicitly that the metal joiner does not cover the outer end surfaces of the end portions.

On other hand, Umeda et al discloses for the purpose of preventing corrosion against water in generators, a stator (see figure 8) having joined portions 61d, which are joined by a metal 61e and the metal 61e does not cover the outer end surfaces and edges of the joined portions 61d (see figure 7). Moreover, Umeda et al discloses that joined portions 61d have a planar surface (see figure 7).

However, neither Kusase et al nor Honda nor Umeda et al disclose explicitly having a metal interposed between joined portions.

On other hand, Ebata et al discloses for the purpose of joining two oxide materials to each other with high adhesive strength that it is well known to have a joining metal interposed between the opposed surfaces of the material being joined together (see abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a stator winding for a generator as disclosed by Kusase et al and using silver as a molten metal for connecting copper conductors for the purpose of avoiding generation of cracking in rotor windings for the purpose of avoiding generation of cracking in rotor windings as disclosed by Honda and to have planar surfaces in joined portions for the purpose of preventing

corrosion against water in generators as disclosed by Umeda et al and to have a metal interposed between joined portions for the purpose of joining two oxide materials to each other with high adhesive strength as disclosed by Ebata et al.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al, Honda, Umeda et al and Ebata et al as applied to claim 1 above, and further in view of Baines.

The combined stator winding discloses all of the elements above. However, the combined stator winding does not disclose using an alloy for a molten metal.

On the other hand, Baines discloses for the purpose of making an efficient connection of a lead wire to a motor contact that it is well known in the art to use copper or a copper alloy as a molten metal (column 1, lines 15-18).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined stator winding as disclosed above and to use a molten metal alloy for the purpose of making an efficient connection of a lead wire to a motor contact as disclosed by Baines.

6. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al, Honda, Umeda et al and Ebata et al and Baines as applied to claims 1 and 2 above, and further in view of Seki et al.

The combined stator winding discloses all of the elements above. However, the combined stator winding does not disclose explicitly using silver alloy or tin alloy as a molten metal.

Although it is well known in the art to use silver and tin as a soldering metal, Seki et al has provided to show that such use of metals, tin and silver and their alloys, are generally used as a molten metal for soldering. Seki et al discloses for the purpose of avoiding reduction in the bonding strength, thus ensuring a proper motor function that silver, tin and their alloys may be used as solder metals (column 4, lines 31-41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined stator winding as disclosed above and to use tin and silver as solder metals for the purpose of avoiding reduction in the bonding strength, thus ensuring a proper motor function as disclosed by Seki et al.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al, Honda, Umeda et al, Ebata et al and Baines as applied to claim 2 above.

The combined stator discloses all of the elements above. However, the combined stator does not disclose using the material for the additive metal.

It would have been obvious to use the material use for the additive metal (Cu-P), since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In *re Leshin*, 125 USPQ 416.

Response to Arguments

7. Applicant's arguments filed 03/02/04 have been fully considered but are moot in view of new grounds of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

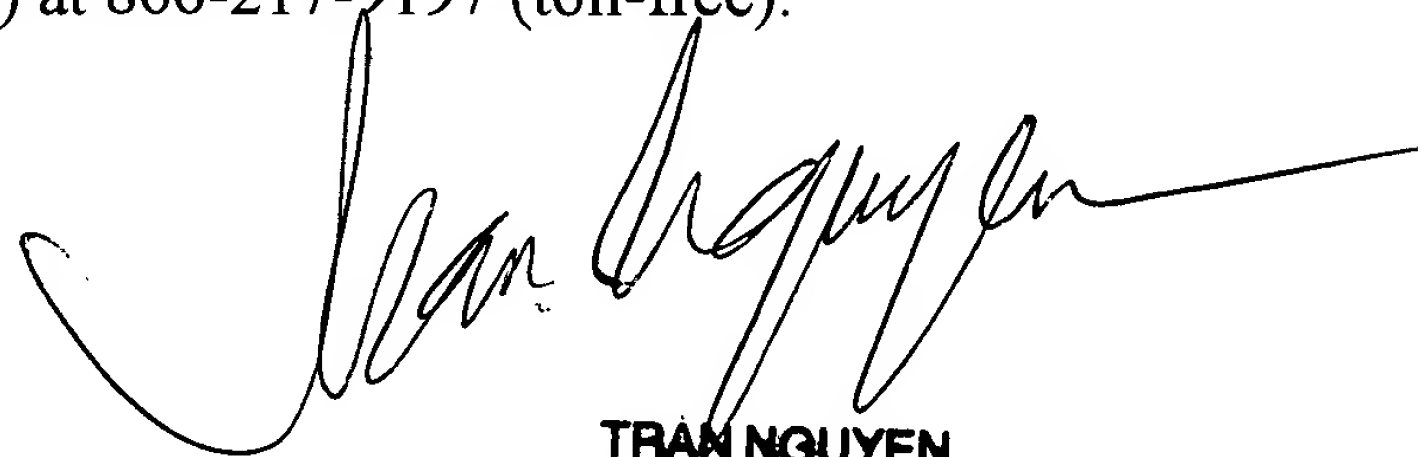
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is 571-272-2024. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jcg

A handwritten signature in black ink, appearing to read 'Tran Nguyen', with a long horizontal flourish extending to the right.

TRAN NGUYEN
PRIMARY EXAMINER